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# United States Department of Agriculture,

## BUREAU OF ANIMAL INDUSTRY.

JOHN R. MOHLER, CHIEF OF BUREAU.

### SERVICE AND REGULATORY ANNOUNCEMENTS.

DECEMBER, 1919.

This publication is issued monthly for the dissemination of information, instructions, rulings, etc., concerning the work of the Bureau of Animal Industry. Free distribution is limited to persons in the service of the bureau, establishments at which the Federal meat inspection is conducted, public officers whose duties make it desirable for them to have such information, and journals especially concerned. Others desiring copies may obtain them from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 5 cents each, or 50 cents a year. A supply will be sent to each official in charge of a station or branch of the bureau service, who should promptly distribute copies to members of his force. A file should be kept at each station for reference.]

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### CHANGES IN DIRECTORY.

#### Meat Inspection Inaugurated.

20—F. Wilson & Co. (Inc.), and Wilson & Co., and Albert Lea Packing Co. (Inc.). Faribault, Minn.

\*681. Valley Packing Co., Salem, Oreg.

\*969. The Northern Packing Co., Grand Forks, N. Dak.

\*315. Thrift Packing Co. (Inc.), Pacific Avenue, Dallas, Tex.

320. Baltimore Butterine Co., 20-24 Wilkens Street, Baltimore, Md.

#### Meat Inspection Withdrawn.

405—A. A. Fink & Sons (Inc.), 129-131 Belmont Avenue, Newark, N. J.

963. Kansas City Packing Co., Kansas City, Kans.

484. Licht Bros., 74 Concord Street, Pawtucket, R. I.

**Changes in Names of Official Establishments.**

489. Bronx Provision Co. and Bronx Provision Corporation of N. Y., 2692 Third Avenue, New York, N. Y., instead of Bronx Provision Co. (Inc.).

420. Chris. Grozinger Co. (Inc.), 195-197 Wilson Avenue, Brooklyn, N. Y., instead of Christian Grozinger.

137. F. A. Ferris & Co. (Inc.), and F. A. Ferris & Co., 262-272 Mott Street, New York, N. Y., instead of F. A. Ferris & Co.

709. I. Blum, 942-944 Fulton Street, Chicago, Ill., instead of 919 Fulton Street.

**Changes of Officials in Charge.**

National Stock Yards, Ill., meat inspection, Dr. J. S. Jenison instead of Dr. E. L. Bertram.

Jersey City, N. J., meat inspection, Dr. Julius Huelsen, instead of Dr. J. S. Jenison.

Fargo, N. Dak., meat inspection, Dr. J. H. Kitzhofer instead of Dr. D. F. Stuck.

Louisville, Ky., meat inspection, Dr. John B. Johnson instead of Dr. S. L. Bond (effective Jan. 15, 1920).

**Station Added.**

Faribault, Minn., meat inspection (substation of Albert Lea, Minn.).

Salem, Oreg., meat inspection (substation of Portland, Oreg.).

Grand Forks, N. Dak., meat inspection, Dr. George C. Faun, care The Northern Packing Co.

Ithaca, N. Y., hog-cholera control, Dr. Bert J. Cady, care New York State College of Agriculture.

Laurens, S. C., dairy-farming investigations, Mr. J. B. Parker.

**Station Discontinued.**

New York, N. Y., import-meat inspection.

**Changes in Addresses of Officials in Charge.**

Dr. G. W. Butler, 323 Federal Building, Indianapolis, Ind., instead of 316 Federal Building.

Dr. N. L. Townsend, 303 U. S. Barge Office, New York, N. Y., instead of 104 West Forty-second Street.

**Notes.**

Meat inspection extended at Establishment 132-F Brighton Dressed Meat Co., Brighton, Mass., to include Lebonen Kosher Wurst Co.

Dr. J. H. Bux, Little Rock, Ark., will be in charge of tuberculosis-eradication work, beginning January 16, 1920, in connection with his other work.

Dr. Lester R. Smith, Fort Worth, Tex., is acting in charge of hog-cholera control work, vice Dr. L. G. Combs.

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**NOTICES REGARDING MEAT INSPECTION.****Pickle for Curing Meats.**

All pickle used for curing meats must comply with Regulation 18, section 5, paragraph 2, B. A. I. Order 211. Pickle which has been used may be used again, provided that it complies with this regulation. All pickle should be inspected at the time of use. Pickle which has been used should be inspected with particular care, and its use should not be permitted unless free from any objectionable condition. If any objectionable condition is found, the use of the pickle should not be permitted unless it is made fit for use by boiling and filtering.



## MOVING-TOP TABLES.

When moving-top eviscerating and inspection table equipment is to be installed in an official establishment, drawings of the proposed installation should be submitted to the bureau for consideration.

The drawings should show the locations of the dressing rails and their height from the floor and from the top of the table and the locations of windows and skylight available to admit direct natural light to the stations where inspection is to be performed. Locations of posts and columns which may act as obstructions in the inspector's access to any of the compartments of the table top should be indicated. If details can not be shown in the plan they should be embodied in a statement accompanying the drawings and should include information such as the following: (a) The usual or normal and the maximum rate of kill per hour; (b) the number and dimensions of the pans or compartments into which the working top of the table is divided; (c) location and length of the eviscerator's platform; (d) the points at which passed viscera and condemned viscera will be removed from the table, and such other information as will aid the bureau in passing on the proposed installation.

If the establishment in which the table is to be installed plans to use any part of it for house operations, a full explanation should be made so that the bureau may decide whether the operations shall be permitted.

## OMISSION OF ESTABLISHMENT NUMBER FROM OLEOMARGARIN CARTONS.

Requests have been received by the bureau for permission to omit the establishment number from oleomargarin cartons in order to permit of their interchangeable use at subsidiary establishments. It appears that the application of a sticker or seal bearing the inspection legend and establishment number, permitted under the regulations, is not practicable on oleomargarin cartons in view of their paraffined coating, and that identity of the place of manufacture is afforded by means of the establishment number appearing on the wrapper immediately surrounding the product. Accordingly, permission is granted for the omission of the establishment number from oleomargarin cartons, provided the product is immediately inclosed in a wrapper bearing the inspection legend and the establishment number.

The omission of the establishment number as indicated above applies only to oleomargarin cartons and will necessitate the reapproval of the cartons so prepared for each establishment at which the containers are to be used.

ANIMALS<sup>1</sup> SLAUGHTERED UNDER FEDERAL MEAT INSPECTION,  
NOVEMBER, 1919.

Station.	Cattle.	Calves.	Sheep.	Goats.	Swine.
Chicago.....	257,298	63,745	430,656	1,576	760,914
Fort Worth.....	34,740	36,345	7,593	1,589	24,730
Kansas City.....	147,677	44,149	71,302	2,408	266,266
National Stock Yards.....	73,632	19,206	41,375	2,766	138,336
Omaha.....	100,720	16,314	125,414	42	116,048
St. Louis.....	20,670	5,105	6,225	.....	137,049
Sioux City.....	33,849	4,152	35,549	.....	81,344
South St. Joseph.....	52,122	12,028	49,739	92	130,386
All other establishments.....	319,388	143,194	459,338	1,723	1,615,099
Total: November, 1919.....	1,040,074	344,238	1,227,191	10,196	3,270,172
November, 1918.....	1,233,081	272,076	1,139,292	18,706	4,280,126
11 months ended November, 1919	9,129,803	3,657,380	11,456,540	77,799	37,021,477
11 months ended November, 1918	10,668,764	3,207,284	9,348,950	126,088	35,552,360

<sup>1</sup> Horses slaughtered, at all establishments, November, 1919, 129.

# IMPORTS OF FOOD ANIMALS AND OF MEATS AND MEAT FOOD PRODUCTS.

The statements following show the imports of food animals and of meats and meat food products inspected by the Bureau of Animal Industry during November, 1919, with figures for other periods for comparison.

## Imports of food animals.

Country of export.	Cattle.	Swine.	Sheep.	Goats.
Mexico.....	8,198	4	.....	1,462
Canada.....	105,928	444	28,083	.....
Total: November, 1919.....	114,126	448	28,083	1,462
November, 1918.....	63,304	2,219	31,116	4,201
11 months ended November, 1919.....	597,014	20,570	169,919	7,510
11 months ended November, 1918.....	327,364	7,139	148,716	32,095


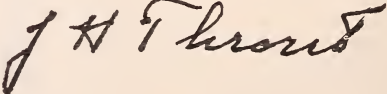
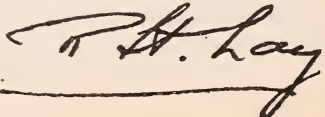
## Imports of meat and meat food products.

Country of export.	Fresh and refrigerated.		Canned and cured.	Other products.	Total weight.
	Beef.	Other.			
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
Australia.....	9,824	21,995	.....	.....	31,819
Canada.....	3,379,286	994,061	90,951	29,342	4,493,640
Other countries.....	624,759	.....	18,493	129,529	772,781
Total: November, 1919.....	4,013,869	1,016,056	109,444	158,871	5,298,240
November, 1918.....	2,786,773	312,207	21,757,968	15	24,856,963
11 months ended November, 1919.....	30,881,764	15,989,419	30,934,279	6,394,310	84,199,772
11 months ended November, 1918.....	14,982,658	2,857,698	83,936,719	6,259,688	108,036,763

Condemned in November, 1919: Pork, 92 pounds. Refused entry: Pork, 37 pounds.

## FOREIGN OFFICIALS AUTHORIZED TO SIGN INSPECTION CERTIFICATES FOR MEAT AND PRODUCTS FOR IMPORTATION INTO THE UNITED STATES.

The following are additional names, addresses, and facsimile signatures of foreign national Government officials authorized to sign and issue certificates of inspection for meat and meat food products offered for importation into the United States:

Country, name, and address.	Signature.
CANADA.	
W. G. Church, 1127 Keele Street, Toronto, Ontario.	
J. H. Theoret, 1127 Keele Street, Toronto, Ontario.	
R. H. Lay, 711 Boyd Building, Winnipeg, Manitoba.	

## INSTRUCTIONS FOR REPORTING INSPECTION AND MALLEIN TESTING OF HORSES AND MULES FOR INTERSTATE MOVEMENT.

As various bureau stations have pursued widely different methods in reporting the inspection and mallein testing of horses and mules for interstate movement, the following instructions are given for the guidance of inspectors in charge and others having to do with this work. All employees concerned should study these instructions carefully and render reports strictly in accordance therewith so that correct and up-to-date bureau records may be kept:

1. F. I. Form 49-B reports<sup>1</sup> should be rendered covering each herd of horses and mules inspected and tested, and should be attached to the copies of the certificate or certificates, F. I. Form 63 (T. E. Form 30), under which the animals reported are shipped for forwarding to Washington through the office of the inspector in charge.

2. F. I. Form 49-C reports<sup>1</sup> should be rendered by the inspector in charge as soon as possible after the close of the month. Each station should render only one such report covering all the work done by all the employees of that force, using as many forms as may be necessary. Animals inspected and tested, and those inspected only, should be reported on the same form, the report to be arranged chronologically.

3. In order to avoid confusion in records, care should be exercised in differentiating between interstate and international movement and the proper forms used for certifying to and reporting each class. Shipments to Alaska, Hawaii, and Porto Rico are classed as interstate. Animals that have been admitted into the United States from either Mexico or Canada, and are then reconsigned interstate from border points, should be certified to on F. I. Form 63 and reported as above outlined.

### PERMITTED DISINFECTANT.

In accordance with the provisions of B. A. I. Order 263, the bureau has granted permission for the use of "Ridzol Compound Dip and Spray," manufactured by the Sanatory Chemical Co., 142 North Third Street, Louisville, Ky., as a substitute for compound solution of cresol U. S. P. in the general disinfection of cars, yards, and other premises.

## SUMMARY OF TUBERCULOSIS-ERADICATION WORK IN COOPERATION WITH THE VARIOUS STATES, NOVEMBER, 1919.

Station.	State.	Tuberculin tests.			Em- ploy- ees.		Total accredited herds in State.	Inspector in charge.	State official.
		Herd or lots.	Cattle tested.	Reacted.	Bureau.	State.			
Albany, N. Y.....	N. Y.....	91	3,346	251	5	4	11	H. B. Leonard..	D. W. McLaury, Albany.
Atlanta, Ga.....	Ga.....	22	408	11	2	1	6	W. M. MacKellar	P. F. Bahnsen, Atlanta.
Baltimore, Md....	Md.....	57	811	61	7	1	39	T. A. Ladson...	R. C. Reed, Baltimore.
Birmingham, Ala.	Ala.....	31	545	6	1	1	22	R. E. Jackson...	C. A. Cary, Auburn.
Bismarck, N. Dak.	N. Dak..	74	1,278	33	3	4	115	H. H. Cohenour.	W. F. Crewe, Bismarck.
Boston, Mass.....	Mass.....	8	515	12	4	...	10	E. A. Crossman.	L. H. Howard, Boston.
Do.....	Me.....	60	686	18	3	3	108	do.....	Boyden Bearce, Augusta.
Do.....	R. I.....	1	35	1	...	...	2	do.....	J. S. Pollard, Providence.
Do.....	Conn.....	8	333	10	1	1	6	do.....	J. M. Whittlesey, Hartford.
Do.....	N. H.....	13	385	34	1	...	2	do.....	A. L. Felker, Concord.
Charleston, W. Va	W. Va....	42	494	11	4	2	9	George W. Neff..	J. H. Stewart, Charleston.
Chicago, Ill.....	Ill.....	106	1,799	91	8	5	22	J. J. Lintner....	A. T. Peters, Springfield.
Columbia, S. C....	S. C.....	21	598	2	2	1	20	W. K. Lewis....	R. O. Feeley, Clemson College.
Columbus, Ohio...	Ohio....	112	1,926	72	7	9	70	Leo E. Davis....	T. A. Burnett, Columbus.
Des Moines, Iowa.	Iowa....	87	2,299	124	5	3	1	F. H. Thompson	R. D. Wall, Des Moines.
Frankfort, Ky.....	Ky.....	46	968	47	4	3	34	W. F. Biles....	S. F. Musselman, Frankfort.
Harrisburg, Pa....	Pa.....	122	1,706	104	6	3	60	P. E. Quinn....	T. E. Munce, Harrisburg.
Helena, Mont.....	Mont....	41	2,250	36	3	3	23	R. Snyder.....	W. J. Butler, Helena.
Indianapolis, Ind.	Ind.....	55	1,115	29	5	5	60	J. E. Gibson....	L. E. Northrup, Indianapolis.

<sup>1</sup> It is probable that F. I. Forms 49-B and 49-C will be changed in the near future to F. I. Forms 62-B and 63-C, respectively.



*Summary of tuberculosis-eradication work in cooperation with the various States, November, 1919—Continued.*

Station.	State.	Tuberculin tests.			Em- ploy- ees.		Total accredited herds in State.	Inspector in charge.	State official.
		Herd or lots.	Cattle tested.	Reacted.	Bureau.	State.			
Jackson, Miss.....	Miss.....	187	1,499	3	5	1	18	J. A. Barger.....	E. M. Ranck, Agricultural College.
Jefferson City, Mo	Mo.....	121	2,288	32	4	3	.....	Ralph Graham..	D. F. Luckey, Jefferson City.
Lansing, Mich....	Mich....	63	1,438	47	5	1	48	T. S. Rich.....	H. H. Halladay, Lansing.
Lincoln, Nebr....	Nebr....	48	1,629	114	2	5	9	S. E. Cosford....	W. T. Spencer, Lincoln.
Little Rock, Ark.	Ark.....	8	71	5	1	.....	.....	M. Gregory.....	R. M. Gow, Little Rock.
Madison, Wis....	Wis....	137	3,838	126	8	5	41	J. S. Healy.....	C. P. Norgord, Madison.
Montpelier, Vt....	Vt.....	195	3,795	274	4	5	32	A. J. De Fosset..	E. S. Brigham, Montpelier.
Nashville, Tenn..	Tenn....	76	1,598	20	4	3	36	Robert Jay.....	M. Jacob, Nashville.
New Orleans, La..	La.....	46	1,124	8	2	.....	4	R. W. Tuck.....	E. P. Flower, Baton Rouge.
Oklahoma, Okla..	Okla....	20	914	123	3	3	.....	W. C. Drake, Jr..	J. A. Whitehurst, Oklaho- ma.
Pierre, S. Dak....	S. Dak..	26	751	35	2	3	6	J. O. Wilson....	A. F. Beaumont, Pierre.
Portland, Oreg....	Oreg....	136	2,049	48	2	2	26	S. B. Foster.....	W. H. Lytle, Salem.
Do.....	Wash....	345	3,486	174	3	5	12	do.....	E. F. Benson, Olympia.
Richmond, Va....	Va.....	114	1,873	21	8	1	274	R. E. Brookbank	J. G. Fernyhough, Rich- mond.
Do.....	N. C....	58	1,004	43	3	2	54	do.....	Wm. Moore, Raleigh.
St. Paul, Minn....	Minn....	201	5,806	137	12	6	268	W. J. Fretz.....	C. E. Cotton, St. Paul.
Salt Lake City, Utah	Utah....	85	1,228	13	3	.....	.....	F. E. Murray....	R. W. Hoggan, Salt Lake City.
Do.....	Idaho....	73	1,221	24	3	.....	3	do.....	J. D. Adams, Boise.
Do.....	Nev.....	93	1,074	147	1	3	.....	do.....	Edw. Records, Reno.
Tallahassee, Fla..	Fla.....	45	695	25	4	2	1	J. G. Fish.....	J. W. De Milley, Tallahas- see.
Topeka, Kans.....	Kans....	48	1,524	18	5	1	13	H. M. Graefe....	J. H. Mercer, Topeka.
Trenton, N. J....	N. J....	16	709	9	2	1	6	W. G. Middleton	J. H. McNeil, Trenton.
Do.....	Del.....	12	476	22	1	1	4	do.....	H. P. Eves, Wilmington.
Washington, D.C.	D. C....	60	185	2	2	.....	7	J. A. Kiernan....	do.....
Do.....	Misc....	18	31	.....	1	.....	.....	do.....	do.....
Total.....	.....	3,228	61,833	2,423	161	102	1,500	.....	.....

### LICENSES FOR VETERINARY BIOLOGICAL PRODUCTS.

Licenses for the manufacture of veterinary biological products have been issued as follows for the year 1920, under the act of Congress of March 4, 1913 (37 Stat., 832), and the regulations made thereunder (B. A. I. Order 265):

License No.	Date.	Name and address of firm.	Products.
1	1919. Dec. 31	National Vaccine & Antitoxin Institute, 1515 U Street, Washington, D. C.	Tetanus antitoxin; tuberculin.
2	Dec. 20	The Eagle Biological & Supply Co., 286 Central Avenue, Kansas City, Kans.	Antihog-cholera serum; hog-cholera virus.
2-A	do....	The Eagle Biological & Supply Co., 1838 West Hickory Street, Oklahoma, Okla.	Do.
4	do....	The Abbott Laboratories, 4753 to 4775 Ravenswood Street, Chicago, Ill.	Antidistemper serum (canine); autogenous bacterin; bacillus-abortion bacterin (bovine); bacillus-suisepiteticus bacterin; blackleg filtrate; blackleg vaccine; canine-distemper bacterin (mixed); hemorrhagic-septicemia bacterin (bovine); navel-ill mixed bacterin (equine); mixed bacterin (for rabbits); mixed-infection bacterin (canine); polyvalent mixed bacterin (equine); staphylo bacterin (canine); strepto coccus-mastitis bacterin (bovine); strepto bacterin (equine); white-scur mixed bacterin (bovine).

Licence No.	Date.	Name and address of firm.	Products.
5	1919. Dec. 31	Parke, Davis & Co., Rochester, Mich., and Atwater and McDougall Streets, Detroit, Mich.	Anthrax vaccine; antianthrax serum; anti-blackleg serum; antidiستم serum (canine); antihemorrhagic septicemia serum (bovine); antihemorrhagic-septicemia serum (ovine); antihemorrhagic-septicemia serum (porcine); anti-influenza serum (equine); antistreptococcus serum (equine); antiwhite-scur serum (bovine); blackleg aggressin; blackleg filtrate; blackleg vaccine; (bovine) hemorrhagic-septicemia bacterin (bovine); hemorrhagic-septicemia vaccine; canine-distemper bacterin; canine-distemper mixed bacterin; colon bacterin (equine); equine-influenza bacterin; equine-influenza mixed bacterin; mallein; mixed-infection bacterin (lepine); mixed-infection phylacogen (equine); pneumonia phylacogen (equine); porcine-hemorrhagic septicemia bacterin; porcine-hemorrhagic septicemia vaccine; staphylococcus bacterin combined (equine); staphylococcus-streptococcus bacterin (canine); streptococcus bacterin (equine); streptococcus-staphylococcus bacterin (equine); tetanus antitoxin; tuberculin.
6	Dec. 20	Pitman-Moore Co., near Zionsville, Ind.	Antical-scur serum; antihog-cholera serum; antihemorrhagic-septicemia serum (for cattle); antihemorrhagic-septicemia serum (for rabbits); antihemorrhagic-septicemia serum (for swine); antimixed-infection serum (for swine); autogenous bacteria; anticalf-scur mixed bacteria; distemper-mixed bacterin (for horses); equine-influenza mixed bacterin; hemorrhagic septicemia bacterin (for cattle); hemorrhagic septicemia bacterin (for rabbits); hemorrhagic septicemia bacterin (for sheep); hemorrhagic septicemia bacterin (for swine); hemorrhagic septicemia vaccine (for cattle); hemorrhagic septicemia vaccine (for sheep); hemorrhagic septicemia vaccine (for swine); hog cholera virus; mastitis mixed bacterin (for cattle); mixed bacterin (for rabbits); mixed bacterin (for swine); strep-staphcoli bacterin (for cattle); strep-staphcoli bacterin (for horses).
10	...do....	The Wichita & Oklahoma Serum Co., Wabash and East Twenty-first Streets, Wichita, Kans.	Antihog-cholera serum; hog-cholera virus.
11	...do....	Sioux Falls Serum Co., 2000 Wabash Avenue, Sioux Falls, S. Dak.	Do.
12	...do....	The Royal Serum Co., Adams and Osage Streets, Kansas City, Kans.	Do.
17	...do....	Beebe Laboratories (Inc.), 155-163 West Third Street, St. Paul, Minn.	Anticalf-scur serum; anticanine-distemper serum; antiequine-influenza serum; blackleg aggressin; blackleg filtrate; blackleg vaccine; canine-distemper vaccine (mixed); equine-influenza vaccine (mixed); hemorrhagic-septicemia vaccine (for cattle); hemorrhagic-septicemia vaccine (for sheep); hemorrhagic-septicemia vaccine (for swine); mallein; mastitis vaccine mixed (for cattle); mixed-infection vaccine (for swine); navel-ill vaccine mixed (for colts); normal horse serum; polyvalent-vaccine mixed (equine); tetanus antitoxin; tuberculin.
18	...do....	The Stock Yards Serum Co., 211 Central Avenue, Kansas City, Kans.	Antihog-cholera serum; hog-cholera virus.
21	Dec. 31	Continental Serum Laboratories Co., Isett Avenue, Muscatine, Iowa.	Abortus bacterin (bovine); anti-influenza-mixed bacterin (equine); autogenic bacterin; blackleg filtrate; blackleg vaccine; colon bacterin (bovine); hemorrhagic-septicemia bacterin (for cattle); hemorrhagic-septicemia bacterin (for chickens); hemorrhagic-septicemia bacterin (for horses); hemorrhagic-septicemia bacterin (for sheep); hemorrhagic-septicemia bacterin (for swine); mastitis-mixed bacterin (bovine); mixed-infection bacterin (bovine); mixed infection bacterin (swine); navel-ill mixed bacterin (equine); polyvalent-mixed bacterin (equine).
23	Dec. 20	The Missouri Valley Serum Co., 50 North Second Street, Kansas City, Kans.	Antihog-cholera serum; hog-cholera virus.



License No.	Date.	Name and address of firm.	Products.
24	1919. Dec. 20	Sihler Serum Co., 208-210 Central Avenue, Kansas City, Kans.	Antihog-cholera serum, hog-cholera virus.
25	...do....	Inter State Vaccine Co., 58 Greystone Avenue, Kansas City, Kans.	Do.
26	...do....	Kaw Valley Serum Co., Greystone Avenue and Perry Street, Kansas City, Kans.	Do.
27	...do....	The Simonson Serum Farm, near Hooper, Nebr.	Do.
30	...do....	Kansas Serum Co., corner Noon and Green Streets, Manhattan, Kans.	Do.
32	...do....	The Standard Serum Co., 11 South Second Street, Kansas City, Kans.	Do.
34	...do....	Peters National Serum Co., Second and Myers Avenue, Kansas City, Kans.	Do.
37	...do....	Sioux City Serum Co., 1319 Bluff Road, Sioux City, Iowa.	Do.
39	...do....	Purity Biological Laboratories, Sioux City, Iowa.	Do.
39-A	...do....	Purity Biological Laboratories, corner Chambers and Chicago Avenue, Sioux City, Iowa.	Antiblackleg serum; blackleg aggressin; black leg filtrate; hemorrhagic-septicemia vaccine (bovine); hemorrhagic-septicemia vaccine (ovine); hemorrhagic-septicemia vaccine (porcine); mixed vaccine (for swine).
39-B	...do....	Purity Serum Co. of Texas, Postepco Heights, Fort Worth, Tex.	Antihog-cholera serum; hog-cholera virus.
40	...do....	Cedar Rapids Serum Co. (Inc.), 123 Twenty-third Avenue West, Cedar Rapids, Iowa.	Do.
41	...do....	Kinsley Laboratories, 400-406 New Centre Building, Kansas City, Mo.	Antibortion bacterin (bovine); anti-influenza-mixed bacterin (equine); antiwhite scour mixed bacterin (bovine); autogenous bacterin; canine-distemper bacterin; colon bacterin (bovine); hemorrhagic septicemia combined bacterin (avian); hemorrhagic septicemia combined bacterin (bovine); hemorrhagic-septicemia bacterin (cuniculi); hemorrhagic septicemia combined bacterin (equine); hemorrhagic septicemia combined bacterin (ovine); mixed bacterin (swine); polyvalent-mixed bacterin (equine); pyæmic arthritis-mixed bacterin (equine); staphylococcus combined bacterin (canine); streptococcus bacterin (equine); streptococcus-mastitis bacterin (bovine); swine-plague bacterin.
48	...do....	The Swine Breeders' Pure Serum Co., near Thorntown, Ind.	Antihog-cholera serum; hog-cholera virus.
52	...do....	The Cutter Laboratory, Fourth and Parker Streets, Berkeley, Calif.	Do.
52	...do....	The Cutter Laboratory, Sixth and Grayson Streets, Berkeley, Calif.	Anthrax vaccine; antianthrax serum; anti-blackleg serum; anticalf-scur serum; anti-canine-distemper serum; antihemorrhagic septicemia serum (bovine); antihemorrhagic-septicemia serum (ovine); antidis-temper and anti-influenza serum (equine); antimixed-infection serum (swine); autogenous bacterin; bacillus-abortion vaccine (bovine); blackleg aggressin; blackleg filtrate; blackleg vaccine; calf-scur mixed bacterin; canine-distemper bacterin; canine-distemper mixed bacterin; fowl-cholera bacterin; hemorrhagic-septicemia bacterin (bovine); hemorrhagic-septicemia bacterin (sheep); hemorrhagic-septicemia bacterin (swine); influenza-mixed bacterin (equine); mallein; mastitis-mixed bacterin (bovine); mixed bacterin (rabbits); mixed infection bacterin (swine); navel-ill mixed bacterin (equine); pneumonia-mixed bacterin (equine); polyvalent-mixed bacterin (equine); staphylococcus bacterin (goats); staph-strep-coli bacterin (equine); streptococcus bacterin (equine); rabies vaccine; tetanus antitoxin; tuberculin.
54	...do....	Kansas State Agricultural College, Vaccine Laboratories, Manhattan, Kans.	Antiblackleg serum; blackleg aggressin; blackleg filtrate; blackleg vaccine.
56	...do....	The Southwestern Serum Co., 308 East Twenty-first Street, Wichita, Kans.	Antihog-cholera serum; hog-cholera virus.
61	...do....	Guilfoil Serum Co., 18 to 22 North Second Street, Kansas City, Kans.	Do.

License No.	Date.	Name and address of firm.	Products.
	1919.		
67	Dec. 31	Shelton Serum Co., Shelton, Nebr....	Antihog-cholera serum, hog-cholera virus.
69	Dec. 20	Southern Serum Co., Springfield Road, West Plains, Mo.	Do.
70	...do....	The St. Joseph Veterinary Laboratories, 1502 Garfield Avenue, St. Joseph, Mo.	Do.
72	...do....	Central Missouri Serum Co., East Eastwood Avenue, Marshall, Mo.	Do.
77	...do....	Corn Belt Serum Co., 215 Winstanley Avenue, East St. Louis, Mo.	Do.
84	...do....	Grain Belt Supply Co., 3215 L Street, Omaha, Nebr.	Antihog-cholera serum; hog-cholera virus; swine-plague bacterin.
85	...do....	The Western Laboratories, French Camp, Calif.	Antihog-cholera serum; hog-cholera virus.
91	...do....	Gregory Farm Laboratory, near White Hall, Ill.	Do.
99	...do....	The Corn States Serum Co., 4420 U Street, Omaha, Nebr.	Do.
102	...do....	The Lathrop Serum Co., Lathrop, Mo..	Do.
103	...do....	Fowler Serum Co., Second Street and Splitlog Avenue, Kansas City, Kans.	Do.
104	...do....	Swan-Myers Co., 219 North Senate Avenue, Indianapolis, Ind.	Abortion bacterin (bovine); bovine-hemorrhagic septicemia bacterin; canine-distemper bacterin (mixed); equine colon bacterin; equine hemorrhagic-septicemia bacterin; equine influenza bacterin; equine influenza bacterin (mixed); equine staphylococcus aureus and albus bacterin; mixed-infection bacterin (for swine); navel-infection mixed bacterin (equine); ovine-hemorrhagic septicemia bacterin; polyvalent-mixed bacterin (equine); swine-plague bacterin; white-scour mixed bacterin (bovine).
107	...do....	Jensen-Salsbery Laboratories (Inc.), 520 West Pennway Avenue, Kansas City, Mo.	Antiequine-influenza bacterin (mixed); autogenous bacterin; blackleg vaccine; bovine; abortion bacterin; canine-distemper bacterin (mixed); colon bacterin (equine); equine-abortion bacterin; gastro-enteritis-mixed bacterin (equine); hemorrhagic-septicemia bacterin (avian); hemorrhagic-septicemia bacterin (bovine); hemorrhagic-septicemia bacterin (equine); hemorrhagic-septicemia bacterin (ovine); keratitis-mixed bacterin (bovine); mallein; metritis-mixed bacterin (bovine); mixed-bacterin (canine); mixed-infection bacterin (for cattle); mixed-infection bacterin (rabbits); mixed-infection bacterin (swine); navel-ill mixed bacterin (equine); polyvalent-mixed bacterin (equine); rabies vaccine; scours-mixed bacterin (swine); staphylococcus bacterin (canine); streptococcus bacterin (equine); streptococcus mastitis bacterin (bovine); swine-plague bacterin; tuberculin; white-scour mixed bacterin (bovine).
108	...do....	Universal Serum Co., 101 St. Clair Avenue, East St. Louis, Ill.	Antihog-cholera serum; hog-cholera virus.
110	...do....	American Serum Co., 2117 Leach Street, Sioux City, Iowa.	Do.
111	...do....	Blue Cross Serum Co., Superior, Nebr.	Do.
112	...do....	Fort Dodge Serum Co. (Inc.), near Fort Dodge, Iowa.	Do.
112-A	...do....	Fort Dodge Serum Co. (Inc.), 600½ Central Avenue, Fort Dodge, Iowa.	Abortion bacterin (bovine); autogenous bacterin; hemorrhagic-septicemia bacterin (cattle); hemorrhagic-septicemia bacterin (sheep); hemorrhagic-septicemia bacterin (swine); mixed-infection bacterin (swine); mallein; tuberculin.
113	Dec. 31	Bureau of Laboratories, Department of Health, foot of East Sixteenth Street, New York, N. Y.	Tetanus toxin.
114	Dec. 20	White Serum Co., 1317 Adams Street, Nashville, Tenn.	Antihog-cholera serum; hog-cholera virus.
115	...do....	The Denver Hog Serum Co., 5030 York Street, Denver, Colo.	Do.
116	...do....	Ottumwa Serum Co., Ottumwa, Iowa..	Do.
117-A	...do....	The Kansas Blackleg Serum Co., Second and Munroe Streets, North, Amarillo, Tex.	Blackleg aggrassin.
120	...do....	The United States Blackleg Serum Co., 3500 West Tenth Street, Oklahoma, Okla.	Do.

License No.	Date.	Name and address of firm.	Products.
122	1919. Dec. 31	The Royal Biological Laboratories, 317-325 Argyle Building, Kansas City, Mo.	Abortion-mixed vaccine (bovine); autogenous vaccine; mixed-infection vaccine (avian); mixed-infection vaccine (bovine); mixed-infection vaccine (ovine); mixed-infection vaccine (swine); navel-ill mixed vaccine (equine); polyvalent-mixed vaccine (equine).
125	...do....	Aurora Serum Co., near North Aurora, Ill.	Antihog-cholera serum; hog-cholera virus.
126	Dec. 20	Hamilton Chemical Co., near Noblesville, Ind.	Do.
129	...do.....	The Eagle Laboratories, Sixth Street and Minnesota Avenue, Kansas City, Kans.	Autogenous bacterin; avisepticus bacterin; contagious-abortion bacterin (bovine); equine-influenza bacterin (mixed); hemorrhagic-septicemia bacterin (for sheep); hemorrhagic-septicemia combined bacterin (bovine); mixed-infection bacterin (equine); mixed-infection bacterin (swine); pig-scur bacterin; staphylococcic bacterin (equine); staphylococcic bacterin (swine); swine-plague bacterin.
130	...do.....	The E. R. Alexander Clear Serum Co., 2109 Grand Avenue, Kansas City, Mo.	Antihog-cholera serum; blackleg filtrate; hog-cholera virus.
131	Dec. 31	The Fostoria Serum Co., Columbus Avenue, Fostoria, Ohio.	Antihog-cholera serum; hog-cholera virus.
132	Dec. 20	University of Illinois, Urbana, Ill. ....	Botulinus antitoxin.
133	...do.....	The National Vaccine and Serum Co., 501 East Las Vegas Avenue, Colorado Springs, Colo.	Abortion bacterin (bovine); blackleg aggrasin; blackleg filtrate; hemorrhagic-septicemia bacterin (for cattle).
134	...do.....	Dr. D. L. Harris' Laboratory, 703-706 Metropolitan Building, St. Louis, Mo.	Rabies vaccine.
135	...do.....	The Eagle Dixie Co. (Inc.), 1502 Clinton Street, Nashville, Tenn.	Antihog-cholera serum; hog-cholera virus.
137	...do.....	Manhattan Serum Co., Fairmont Addition, Manhattan, Kans.	Do.
139	...do.....	J. C. Swan-Williamson Co., 315 North Capitol Avenue, Indianapolis, Ind.	Bovine contagious-abortion bacterin; bovine hemorrhagic-septicemia bacterin; bovine streptococcus-mastitis bacterin; bovine white-scour mixed bacterin; canine-distemper-mixed bacterin; equine-distemper bacterin; equine influenza-pneumonia-mixed bacterin; equine-navel infection-mixed bacterin; equine staphylococcus albus and aureus bacterin; equine staph-strep-coil bacterin; mixed-infection bacterin (swine); swine-plague bacterin.
140	...do.....	Mitchell Serum Co., West Second Street, Grand Island, Nebr.	Antihog-cholera serum; hog-cholera virus.
141	...do.....	Capital Serum Co., 1635 Maury Street, Des Moines, Iowa.	Do.
142	...do.....	The Cook Biological Laboratories Co., near Mount Healthy, Ohio.	Do.
143	...do.....	The Johnson Serum Co., corner Crane and Jefferson Streets, Topeka, Kans.	Do.
144	...do.....	Terrell's Biological and Chemical Laboratories, 1301 Eighth Avenue, Fort Worth, Tex.	Mixed-infection bacterin (rabbits).
145	...do.....	West Plains Serum Co., Springfield Road, Westplains, Mo.	Antihog-cholera serum; hog-cholera virus.
147	...do.....	Hygienic Manufacturing Laboratories, 601-607 Massachusetts Building, Kansas City, Mo.	Hemorrhagic-septicemia bacterin (bovine); mixed-infection bacterin (swine); pig-scur bacterin; swine-plague bacterin.
148	Dec. 31	Zell-Straub Laboratories, 1611 Masonic Temple, Chicago, Ill.	Anticaine-distemper serum; autogenous bacterin; avian hemorrhagic-septicemia bacterin; blackleg filtrate; bovine abortion bacterin; bovine hemorrhagic-septicemia bacterin; bovine mastitis-streptococcus bacterin; canine-distemper-mixed bacterin; canine-mixed-infection bacterin; equine hemorrhagic-septicemia bacterin; ovine-hemorrhagic septicemia bacterin; swine hemorrhagic-septicemia bacterin; swine mixed-infection bacterin.

## License Suspended.

License No. 127, dated December 20, 1918, issued to the Liberty Laboratories, Ralston, Nebr., was suspended December 17, 1919, for a period of 10 days beginning December 22, 1919, after the presentation of conclusive evidence to the effect that the firm named had violated the regulations of the department, promulgated for the enforcement of the virus-serum-toxin law.



## CLARIFIED ANTIHOG-CHOLERA SERUM.

The following requirements have been made with reference to the clarification of antihog-cholera serum:

1. Clarified antihog-cholera serum shall contain not less than 65 per cent of true serum (clear fluid derived from hyperimmune blood, less any clarifying, preserving, or other solutions added), and the volume thereof shall not be more than 98 per cent of the quantity of ordinary serum that theoretically could be produced from the hyperimmune blood used in its preparation.

2. Clarified antihog-cholera serum which contains less than 80 per cent of true serum shall be tested and marketed under the requirements of B. A. I. Order 265, pertaining to ordinary defibrinated blood serum.

3. Clarified antihog-cholera serum which contains not less than 80 per cent of true serum and the volume of which is not more than 78 per cent of the quantity of ordinary serum possible to be produced from the hyperimmune blood used in its preparation may be tested and marketed under the requirements of section 10 of regulation 19 of B. A. I. Order 265.

4. When hyperimmune *whole blood* is used in the production of clear antihog-cholera serum, an allowance of 5 per cent should be made for fibrin removed in the course of preparation.

5. Normal salt solution containing 0.5 per cent of phenol by volume may be used in the preparation of clarified antihog-cholera serum, provided the product, when completed for marketing, meets the terms of this order. Due allowance must be made for test samples or other loss in volume when making calculations as to the quantity of salt solution to be added.

6. All calculations regarding quantities of serum handled should be stated in terms of volume. If the product is weighed, proper adjustments should be made with due regard to the specific gravity of the product handled. When blood containing solutions is centrifuged, practically the whole of the solution should be considered as recovered with the serum, and allowance for these solutions should be made in making calculations. If this material is filtered, allowance should also be made for solutions contained therein, but the particular method of filtering must be taken into account, as filters, of course, retain solutions as well as serum.

7. The following rules are furnished for the use of those concerned in order that methods of making calculations pertaining to the production of clear serum will be uniform, although other methods which are accurate may be used:

(a) To determine the quantity of defibrinated blood, or its equivalent, when the volume of whole blood is known, multiply the whole blood by 0.95 (95 per cent represents whole blood less 5 per cent fibrin).

(b) To determine the quantity of whole blood when the volume of defibrinated blood is known, multiply the defibrinated blood by the factor 1.052, or divide the same by 0.95 (95 per cent).

(c) To determine the *maximum* quantity of completed ordinary serum that theoretically can be produced from a known volume of *whole blood*, multiply this volume by the factor 1.055 or divide it by 0.9482. Of course this information may also be obtained by ascertaining the quantity of defibrinated blood or its equivalent and adding one-ninth of the *volume* thereto for preservative.

(d) To determine the *maximum* quantity of completed clear serum, consisting of not less than 65 per cent true serum, that can be produced from a given volume of *defibrinated blood* in compliance with the terms of this order, multiply the volume of defibrinated blood by the factor 1.087. The result will represent 98 per cent of the possible yield of ordinary serum.

(e) To determine the *maximum* quantity of completed clear serum, consisting of not less than 80 per cent true serum, that can be produced from a given volume of *defibri-*

nated blood in compliance with the terms of this order, multiply the volume of defibrinated blood by the factor 0.8658. The result will represent 78 per cent of the possible yield of ordinary serum.

(f) To determine the *maximum* quantity of completed clear serum, consisting of not less than 65 per cent true serum, that can be produced from a given volume of *whole blood*, multiply the volume of whole blood by the factor 1.033. This result will represent 98 per cent of the possible yield of ordinary serum.

(g) To determine the *maximum* quantity of completed clear serum, consisting of 80 per cent true serum, that can be produced from a given volume of *whole blood*, multiply the volume of whole blood by the factor 0.8225. The result will represent 78 per cent of the possible yield of ordinary serum.

(h) To determine the quantity of completed clear serum, consisting of at least 65 per cent true serum, that can be produced from a given volume of *true serum*, when this represents not more than 70.7 per cent of the defibrinated blood or its equivalent from which it is recovered, divide the true serum by 0.65 (65 per cent). The result will be 98 per cent or less of the possible yield of ordinary serum, depending upon the percentage of true serum recovered.

(i) To determine the quantity of completed clear serum, consisting of at least 80 per cent true serum, that can be produced from a given volume of *true serum*, when this represents not more than 89.25 per cent of the defibrinated blood or its equivalent from which recovered, divide the true serum by 0.80 (80 per cent). The result will be 78 per cent or less of the possible yield of ordinary serum, depending upon the percentage of true serum recovered.

(j) It will be noted that the methods outlined in the two preceding paragraphs are adapted to fluctuating recoveries of true serum and that proper adjustments must be made when the true serum involved is more than 70.7 and 69.26 per cent respectively of the defibrinated blood or its equivalent from which it is recovered; otherwise the completed clear serum produced will represent more than 98 and 78 per cent, respectively, of the possible yield of ordinary serum.

(k) To determine the per cent of true serum recovered from a given volume of defibrinated blood or its equivalent, divide the volume of true serum (unfinished clear serum less clarifying solutions) by the volume of defibrinated blood or its equivalent.

(l) To determine the per cent of yield of completed clear serum as compared to the possible yield of ordinary serum, divide the volume of completed clear serum by the possible yield of ordinary serum.

(m) To determine the per cent of true serum in a given volume of completed clear serum (end product), divide the volume of true serum contained therein by the volume of completed clear serum involved.

(n) Licensed establishments are required to submit an outline of the methods by which it is proposed to prepare clear antihog-cholera serum. This outline should show what will take place in each step of the process. Serum should not be produced for marketing until the outline has been approved.

(o) Whenever clear antihog-cholera serum is produced over a new outline, figures based on one or two batches should be submitted to the bureau for review. These figures should at least give the following information.

- (1) Hyperimmune blood collected, whole or defibrinated.
- (2) Clarifying solutions, quantity of each.
- (3) Unfinished clear serum recovered by centrifugalization or otherwise.
- (4) Diluent, if any.
- (5) Preservative used.
- (6) Completed clear serum.

Reports submitted on Form 43-D concerning tests of clarified antihog-cholera serum should show the following:



True serum recovered, — per cent. (See paragraph *k*.)

End product or final production, — per cent. (See paragraph *l*.)

True serum in end product, — per cent. (See paragraph *m*.)

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### USE OF HOG-CHOLERA VIRUS.

Ordinary defibrinated blood hog-cholera virus only shall be used in tests made of anti-hog-cholera serum to determine its potency. Further, ordinary defibrinated blood hog-cholera virus shall be used for inoculating pigs to be used in the production of hyperimmunizing virus.

Clarified hog-cholera virus may be used occasionally for inoculating a few pigs with the view of producing a strain of hog-cholera virus free of so-called secondary invaders.

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### REPORTING INJURIES TO EMPLOYEES.

When injuries to bureau employees result in no loss of time, reports should not be submitted to the bureau or to the United States Employees' Compensation Commission unless there is a medical, surgical, or transportation expenditure involved which will be a charge against the Compensation Commission. Records of such injuries resulting in no loss of time should, however, be kept at the station for reference in case disability from the same injury should occur later.

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### NECESSARY TIPS IN IOWA ALLOWABLE.

In a decision of the Comptroller of the Treasury dated November 15, 1919, it is held that the decision of the Supreme Court of the State of Iowa in the case of *Donahue v. Huber*, No. 31536, March 17, 1919, is not free from doubt as applying to tips other than those given to barbers. But for the purpose of reimbursement of employees of this department for necessary tips given in the State of Iowa the so-called antitipping law of that State is to be regarded as of no force or effect, and reimbursement may be made as though the law had not been passed. The comptroller bases his decision on a recent written opinion of the Attorney General of the State of Iowa, who is the highest official in that State charged with the prosecution of offenses under each law, in which he holds that the law is unconstitutional in all of its provisions.

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### RESULTS OF PROSECUTIONS FOR VIOLATIONS OF LAWS.

Penalties have been imposed in prosecutions for violations of regulatory laws, as reported to the bureau, as follows:

#### Live-Stock Quarantine Law.

Southern Railway Co., \$100 fine and \$19.55 costs.

O. L. Skipper, \$100 fine and \$13.80 costs.

Tom E. Stanley and A. L. Singer, \$100 fine and \$11.50 costs.

#### Twenty-Eight-Hour Law.

Michigan Central Railroad Co. (40 cases), \$4,200 fines and \$38.94 costs.

Cleveland, Cincinnati, Chicago & St. Louis Railway Co. (35 cases), \$2,800 fines and \$127.84 costs.

Central Railroad Co. of New Jersey (5 cases), \$500 fines and \$13.86 costs.

## Virus-Serum-Toxin Law.

C. Rhea, L. J. Reed, and Terry Dickerson, of the C. Rhea Serum Co., Kansas City, Kans. (5 cases), \$500 each and costs.

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## REGULATIONS IN FORCE.

A list of B. A. I. orders and amendments and other orders and notices in effect at the beginning of the year 1920 is given below. Each station or office should keep a file of all such regulations that relate to its work. The bureau will furnish, so far as possible, on request, copies of any that may be necessary to complete such a file.

B. A. I. Order 92. Special order prohibiting the landing of animals from the Philippine Islands at any of the ports of the United States or of the dependencies thereof. (Dec. 13, 1901.) Amendment 1 (July 7, 1916).

B. A. I. Order 97. Extracts from existing laws, with rules and regulations as therein provided, prescribed for the inspection and certification of renovated butter and other dairy products for export. (Oct. 1, 1902.)

B. A. I. Order 147. Regulations prescribed in regard to renovated butter in accordance with the act of Congress approved May 9, 1902. (July 11, 1907.) Amendments 1 (Sept. 30, 1908) and 2 (July 8, 1914).

B. A. I. Order 193. Regulations governing the sanitation of renovated or process butter factories. (Oct. 21, 1912.)

B. A. I. Order 206. Regulations governing the recognition of breeds and purebred animals. (Nov. 11, 1913.) Amendments 1 (Aug. 9, 1914), 2 (Aug. 31, 1915), 3 (Nov. 2, 1916), and 4 (July 15, 1919).

B. A. I. Order 211. Regulations governing the meat inspection of the United States Department of Agriculture. (July 15, 1914). Amendments 2 (Nov. 20, 1915), 3 (May 2, 1916), 4 (July 9, 1917), 5 (Dec. 31, 1917), 6 (May 1, 1918), 7 (Feb. 21, 1919), 8 (June 11, 1919), 9 (Aug. 8, 1919), 10 (Aug. 6, 1919), 11 (Oct. 23, 1919), and 12 (Oct. 23, 1919).

B. A. I. Order 256. Special order prescribing methods for the disinfection of hides, skins, fleshings, hide cuttings, parings, and glue stock, and other animal by-products, hay, straw, forage, or similar material offered for entry into the United States, and the containers of glue stock, bones, hoofs, and horns so offered for entry. (Dec. 14, 1917.)

B. A. I. Order 257. To prevent the spread of scabies in sheep. (Feb. 28, 1918.) Amendment 1 (Mar. 11, 1919).

B. A. I. Order 263. Regulations governing the interstate movement of live stock. (May 15, 1919.) Amendment 1 (July 7, 1919).

B. A. I. Order 264. Regulations governing the inspection, humane handling, and safe transport of export animals. (May 28, 1919.) Amendment 1 (Oct. 31, 1919).

B. A. I. Order 265. Regulations governing the preparation, sale, barter, exchange, shipment, and importation of viruses, serums, toxins, and analogous products intended for use in the treatment of domestic animals. (Aug. 1, 1919.)

B. A. I. Order 266. Regulations for the inspection and quarantine of horses, cattle, sheep, swine, and other animals imported into the United States. (Aug. 30, 1919.) Amendments 1 (Oct. 11, 1919), and 2 (Nov. 13, 1919).

B. A. I. Order 267. Regulations governing the appraisalment of tuberculous cattle and expenditures on account of the control and eradication of tuberculosis of animals. (Aug. 6, 1919.)

B. A. I. Order 269. To prevent the spread of splenetic, southern, or Texas fever in cattle. (Nov. 11, 1919.)

Joint Order No. 2 (United States Treasury Department and Department of Agriculture). Regulations governing the sanitary handling and control of hides, fleshings, hide cuttings, parings, and glue stock, sheepskins and goatskins and parts thereof, hair, wool, and other animal by-products, hay, straw, forage, or similar material offered for entry into the United States. (Oct. 15, 1917.)

Joint Order No. 3 (United States Treasury Department and Department of Agriculture). Regulations providing for the importation into the United States below the southern cattle-quarantine line of tick-infested cattle from Mexico, South and Central America, the islands of the Gulf of Mexico, and the Caribbean Sea. (Apr. 23, 1918.) Amendment 1 (Dec. 24, 1918).

Notice No. 1. Notice under section 2, Regulation 27, of the Regulations Governing the Meat Inspection of the United States Department of Agriculture (B. A. I. Order 211), in reference to meat and products offered for importation into the United States from the Republic of Mexico. (May 6, 1915.)

Notice No. 2. Notice under section 2, Regulation 27, of the Regulations governing the Meat Inspection of the United States Department of Agriculture (B. A. I. Order 211), in reference to meat and products offered for importation into the United States from the Republic of Mexico. (Oct. 20, 1915.)

Notice regarding interstate movement of horses, mules, and asses affected with glanders. (Oct. 9, 1907.)

Notice regarding the interstate movement of cattle and swine which are affected with tuberculosis. (Nov. 6, 1907.)

The feeding, watering, and resting of live stock in course of interstate transportation. (Apr. 23, 1919.)

#### PUBLICATIONS IN DECEMBER.

[The bureau keeps no general mailing list for sending publications to individual employees. When a new publication is issued one or more copies are usually sent to each officer in charge of a station. If additional copies are desired for distribution to members of the force or for other use they will be sent on request if possible. Individual employees who wish to obtain any of the publications listed here should apply first to the local officer in charge. If he has no extra copies, application may then be made to the Washington office.]

Farmers' Bulletin 1068. Judging Beef Cattle. By E. H. Thompson, Animal Husbandry Division. Pp. 23, figs. 9.

Farmers' Bulletin 1073. Growing Beef on the Farm. By F. W. Farley, Animal Husbandry Division. Pp. 23, figs. 11.

Department Circular 19. Poultry Houses. Prepared in the Animal Husbandry Division. Pp. 8, figs. 3.

Department Circular 71. Trend of the Cheese Industry in the United States and Other Countries. By T. R. Pirtle, Dairy Division. Pp. 24, figs. 25.

The Pathology of Dourine, with Special Reference to Microscopic Changes in Nerve Tissues and Other Structures. By Robert J. Formad, Pathological Division. In *Journal of Agricultural Research*, Vol. XVIII, No. 3. A-50. Pp. 145-154.

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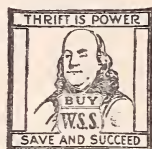
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